

systems and equipment can be better utilized or changed to meet mission needs. Developments may be in the form of equipment systems, materials, processes, procedures and techniques, and may be new, substantially improved, or extensively modified, involving integration of new capabilities into deployed systems.

Analyzes hardware related problems and opportunities and initiates efforts to resolve or carry them out through AMC laboratories and RD&E centers utilizing junior level engineers and scientists in FAST-JUNIOR assignments whenever practicable.

Assesses fielded U.S. Army weapons systems and their inherent ability to work harmoniously with equipment of our allies. Recommends methods to improve interoperability and standardization.

Establishes the fundamental value of new technology or scientific development and its relevance to Army operations either for their use by friendly forces, or for the defense that must be devised against new scientific developments liable to be employed by hostile forces. Evaluates unsolicited proposals for feasibility and utility to military operations and recommends promising proposals for development and testing. In particular seeks ways to improve operational safety, weapon system performance and training effectiveness. Also gives special attention to methods of effecting operation and support cost savings.

Communicates ideas, concepts, methods, analyses, evaluations and recommendations in lucid, logical and convincing manner, either by oral or written communications to technical, management and General Officer level groups with equal facility and cogency.

Provides advice to the Commander, to whom assigned, on ways in which new technology will affect the future of land warfare and on the scientific and technological advances that should be anticipated. Presents and supports proposals and programs for application of new technologies emerging from Army technology base programs. Advises on whether proposed objectives, goals, and programs should be continued or abandoned.

Integrates and coordinates the efforts of others, including adjunct technical advisers, U.S. and foreign industrial and scientific personnel in formulating development of concepts and proposals for consideration in improving capabilities. Performs analyses and advises on methods of better utilizing assigned Army command resources.

Represents the scientific concerns of the Commander to members of the scientific and technical community, private research organizations, foreign representatives, and on committees and in meetings as a recognized authority. Provides feedback to AMC labs and RD&E Centers of technical requirements in the field command that require long range tech base effort.

Develops plans and programs for the incorporation of technical and scientific developments into operations of a major Army command. Recommends phase-in in accordance with realistic assessment of availability, state of development, etc. Identifies to AMC laboratories, Director, AMC-FAST, and CG, LABCOM, critical technical problems which affect operational readiness and should be quickly solved. This includes the identification of potential improvements to existing equipment or systems or the development of new materiel technology.

Deploys in time of national emergency. The work requires a robust individual capable of deployment with Army troops when necessary. The Science Adviser will be required to participate in or observe numerous field exercises with Army units.

Coordinates activities with a GS-15 Science Adviser in his/her FAST Division.

Performs other duties as assigned.

FACTORS

1. Knowledge Required by the Position

Demonstrated ability to critically evaluate material and systems from a scientific and/or engineering point of view in order to determine actual or potential weakness or deficiencies and to evaluate unexploited or underutilized features.

Knowledge of the Army Materiel Command current state and direction of research, development and testing of emerging technologies such as mechanics, laser, electronic deception, electronic countermeasures, and a management knowledge of the weapons system acquisition process.

Formal qualifications as an engineer, or scientist with working experience in one or more of the fields of mechanics, electronics, computer science, physics, chemistry and optics and aerospace design.

A thorough understanding of and working experience with and working experience with the principles and practices of the materiel acquisition process and systems acquisition methodology.

Knowledge of the U.S. Army's current and long range objectives, new concepts of warfare, and the technological implications inherent in them.

Ability to communicate ideas, concepts, methods, analyses, evaluations and recommendations in a lucid, logical and convincing manner, either by oral or written communications to technical, management and General Office level groups with equal facility and cogency.

2. Supervisor Controls

This science adviser works under the guidance of the Commanding General of a major command, the director, AMC-FAST and the Technical Director/Office head of organization from which selected. The adviser is given broad policy concepts, overall objectives, areas of continuing or special concern, and general philosophies and approach. The adviser has wide latitude for independent consideration and action in making contacts, technical considerations and commitments. Is expected to identify problems and initiate action to resolve them rather than getting any specific assignments or instructions. Work results are reviewed only for adherence to administrative policy, for assurance that broad technical objectives have been fulfilled, and the impact of the adviser's advice on technological readiness. Is responsible for evaluating the effect of significant technological change on fundamental readiness policies, objectives, and goals. Recommendations and conclusions are considered authoritative and are not reviewed technically even though final approval depends upon formal action of the commander. Knowledge and experience in technical systems forms the basis for exercising technical judgment. This, together with analyses of technical information from many sources, provides the major guidance in accomplishing work.

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As a representative of AMC laboratories, is responsible, through the Director, AMC-FAST to the AMC DCG for RD&A. Keeps these individuals informed of significant matters of interest relating to both scientific and operational problems and the progress being made to solve them. Is totally administratively supported by the AMC laboratory, office, or headquarters from which selected.

3. Guidelines

Guidelines are broadly stated and unspecific, e.g., bring to bear on the organizational and operational development process the levels of technology that are attainable for a field army. The adviser must use experienced judgment, creativity and foresight to define the need for adaptation or exploitation of new technology to serve major Army command objectives and programs.

4. Complexity

The commands and training center vary widely to engineering/scientific disciplines that dominate problems. Complexity comes from involvement with advanced concepts in several engineering disciplines (electrical/ electronic, mechanical aerospace) and several scientific disciplines (physics, chemistry, metallurgy) related to the technological aspects of such areas of scientific concern to the commander as command and control, tactical deception and electronic countermeasures, signal intelligence, and target acquisition. The work requires constant and detailed interaction with industry, academia, the scientific community, and the other military services.

Evaluates the implications of new developments and concepts and their effects upon field army structure, doctrine and tactics. Follows progress of development of major items and systems and influences decisions of the commander to ensure an adaptation or integration of items and systems which will most effectively satisfy field readiness of the major Army command. Recommend continuous adjustments in plans, operational concepts, etc., to accommodate the various stages of development of such systems as communications tactical data systems or laser designation systems and to facilitate changes necessitated by new threats, scientific breakthroughs, and unsatisfactory performance of new systems or methods. Makes estimates of the effect of possible enemy threats upon existing or contemplated equipment and systems and recommends measures to counter enemy measures and countermeasures. These threats include chemical, radiological, including electromagnetic pulse, biological and electronic.

5. Scope and Effect

This position provides the major Army command with scientific guidance of the constantly evolving systems and concepts governing command and control, operations and support of the major command. Serves as a recognized authority in the adaptation of high technology for this purpose. As such, serves as a consultant within the MACOM and with outside organizations. Provides scientific and technical advice to the Commander and his principal staff officers, to the Commanders of subordinate echelons, and of other organizations engaged in test, evaluation and application of new technology. The technological posture has HQDA and Congressional interest.

Factor 6. Personal Contacts

Personal contacts are with the MACOM Commander and staff, principal subordinate commanders, US industry scientific personnel, and technical representatives, visiting members of DOD and HQDA, senior representatives of the other US services, and with Chiefs and Allied Liaison Officers who are interested in technological advances applicable to military operations.

The nature of the work and the investigation of problems will require frequent visits to the field to meet with operator and maintenance personnel (officers, NCOs, and enlisted).

Factor 7. Purpose of Contacts

Purpose is to provide expert advice and guidance in the application of technology to Army combat forces, combat support forces, and combat services support forces. Provides scientific and technical guidance and coordination for MACOM overall operations. Represents the Commander at special conferences, meetings, and presentations with subordinate Commanders, including Commanders of combined field army elements and supporting elements, and high-ranking members of other US Armed Forces to explain new or modified scientific and technological concepts applicable to their operations and to gain acceptance for adaptation or acquisition of new or modified systems, equipment or techniques. Must also be persuasive when arguing against the adaptation of unsuitable new developments.

Factor 8. Physical Demands

The work requires a robust individual capable of deployment with Army troops when necessary. Will be required to participate in or observe numerous field exercises with Army units.

Factor 9. Work Environment

Work is performed in an office setting with frequent field visits to units and activities and other major commands.

Travel is required approximately 30% of the time.

THIS POSITION IS CONSIDERED EMERGENCY ESSENTIAL TO SUPPORT DA'S MOBILIZATION AND WARTIME MISSION DURING PERIODS OF INCREASING TENSION OR MOBILIZATION. THIS POSITION IS CONSIDERED EMERGENCY ESSENTIAL BECAUSE (1) NO QUALIFIED OR IMMEDIATE REPLACEMENT EXISTS, AND (2) HAVING IT VACANT WOULD (A) IMPAIR THE EFFECTIVE OPERATION OF ESSENTIAL MILITARY SUPPORT SYSTEMS, OR (B) ADVERSELY IMPACT THE CCMBAT MISSION OF DEPLOYED FORCES. FAILURE TO REMAIN IN THIS POSITION MAY RESULT IN SEPARATION FOR THE EFFICIENCY OF THE FEDERAL SERVICES (CH 75 TITLE 5 USC; FPM SEC 752).

CRITICAL ACQUISITION POSITION AMENDMENT TO PD# 11043

"This is a Critical Acquisition Position. Unless specifically waived by the appropriate Army official, the following are statutory requirements (Reference: 10 U.S.C. 1733 - 1737):

- Selectee must be qualified for Acquisition Corps membership at the time of selection or possess a waiver.

- Selectee must execute, as a condition of appointment, a written agreement to remain in federal service in this position for at least 3 years. In signing such an agreement, the employee does not forfeit any employment rights, nor does such an agreement alter any other terms or conditions of employment."